

Evaluation of EPA Actions to Address Elevated Cancer Risks from Air Toxics Emissions from Point Sources
OA&E-FY19-0091
WP F.01.b

PURPOSE: To answer questions Region 5 had regarding our initial information request.

SCOPE: Held meeting with Region 5 to answer questions they had regarding our initial information request.

SOURCE: A) 3/11/19 email from PM to Region 5 with request for a kickoff meeting and information request.
B) See the list of meeting participants below.

DATE and TIME: 3/18/19, 2:30 – 3:15 PM CDT.

LOCATION: Teleconference.

PARTICIPANTS:

Region 5

Eileen Furey, Deputy Director, Air and Radiation Division, (312) 886-7950

Katie Siegel, Chief, Air Toxics and Assessment Branch, Air and Radiation Division, (312) 886-3006

Alexis Cain, Acting Chief, Toxics and Global Atmosphere Section, Air Toxics and Assessment Branch, Air and Radiation Division, (312) 886-7018

OIG – Office of Audit and Evaluation – Air Directorate

Renee McGhee-Lenart, Project Manager, (913) 551-7534

Bao Chuong, Physical Scientist, (415) 947-4533

CONCLUSION: No conclusions drawn from this one meeting.

SUMMARY: We met with Region 5 because they had questions related to the expanded scope. We ended up discussing

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- Congressional questions the team is addressing.
- Region 5 efforts to address facilities contributing to high cancer risks according to the 2014 NATA.
- Universe of ethylene-oxide emitting facilities and inspections at those facilities.

Noteworthy points from the meeting included:

- (b) (5) [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]

DETAILS:

BACKGROUND

OIG had received four Congressional requests (see A.02.b > Sources A [Link](#); B [Link](#); C [Link](#); and D [Link](#)). OIG Senior Leadership Team agreed to have the team address the Congressional requests (see A.02.b > Details section [Link](#)).

On 3/11/19, Renee sent an email to Region 5 with an information request and a request for a kickoff meeting. (See Source A)

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Congressional Request Questions to Be Addressed

After introductions, Eileen stated that she understood that OIG has already spoken to Region 6 and wanted to know our scope for the Congressional requests. Renee responded that we will be addressing the following Congressional request questions and that Eileen, Katie, and Alexis would hear them again during the kickoff meeting with Region 5:

(b) (5)

The third question applies to Region 5, but we will determine whether this is an issue in Region 6 as well.

(b) (5)

Region 5 took the initiative to address potential high cancer risk attributed to ethylene oxide emissions from Sterigenics but OAQPS has taken over the effort

Eileen asked whether OIG is aware of Region 5's efforts to address potential high cancer risk attributed to ethylene oxide emissions from Sterigenics in Willowbrook based on the 2014 NATA. Renee responded that we are aware of Region 5's efforts.

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Eileen then stated that ethylene oxide issues are being addressed through Region 5's Air Toxics and Assessment Branch, not the Air Enforcement and Compliance Assurance Branch. For example, at the invitation of Michigan, Region 5 staff accompanied Michigan personnel to look at a facility to determine what could be done to reduce ethylene oxide emissions.

Renee pointed out that ECHO shows Region 5 had conducted some inspections at ethylene oxide-emitting facilities.

Katie / Alexis explained that they had seen initial / preliminary 2014 NATA results coming out of OAQPS showing several census tracts, including those around Sterigenics and Ele, with high cancer risk above 100 in 1,000,000. Region 5 decided to do its own modeling for Sterigenics and Ele. Their modeling results were then shared with Sterigenics in December 2017. Around February 2018, Region 5 requested assistance from ATSDR (which is in the same building as Region 5), asking them for a health consultation (i.e., health/risk assessment). Region 5 had requested assistance from ATSDR for other issues in the past. Then Region 5 sought assistance from OAQPS for ambient monitoring of ethylene oxide around the Sterigenics facility because it's possible the air quality modeling was off and ethylene oxide may have been degraded or chemically transformed soon after being emitted into the atmosphere. Region 5 also chose to conduct ambient monitoring around Sterigenics because there is an EPA warehouse near Sterigenics, which would make it convenient for EPA to place monitors there and conduct ambient monitoring for a couple of days. The ambient monitoring took place in May 2018. There were some high readings. ATSDR used the monitoring data results as part of the health assessment. "Things blew up" when OAQPS found out about Region 5 having ATSDR conduct a health assessment. This was the first time that OAQPS or HQ has ever had an issue with Region 5 taking the initiative to conduct a health assessment using both ambient monitoring and modeling results.

Region 5 also ended up looking further in depth at Vantage (after learning Vantage's emissions data were missing) and Medline.

Bottomline, Region 5 is no longer the lead with addressing ethylene oxide issues within the Region. OAQPS has taken over Region 5 as the lead for all ethylene oxide issues. Region 5 has to get the okay from OAQPS to conduct any in depth or detailed studies on its own, such as ambient monitoring or air quality modeling. Everything goes through OAQPS, specifically Mike Koerber.

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Universe of ethylene oxide-emitting facilities in Region 5

Alexis stated that Region 5 has over 400 ethylene oxide-emitting facilities according to the 2014 National Emissions Inventory (NEI). However, many of these facilities, mainly wastewater treatment plants, reported emitting less than one pound of ethylene oxide in 2014. He agreed that there are also a lot of hospitals on the NEI list. The wastewater treatment plants probably used an emission factor to estimate the amount of ethylene oxide emitted from their facilities. Not sure whether OIG wants to see the entire list. Bao responded that we'd like to see the entire list in order to be responsive to the Congressional requesters.

Renee stated that we searched the TRI, ICIS, and ECHO databases for ethylene oxide-emitting facilities in Region 5. Renee will send that list to Region 5 so that the region can tell us whether any of the facilities are still operating or not and whether there are other facilities not on our list.

Inspections of ethylene oxide-emitting facilities in Region 5

Renee asked whether full compliance evaluations are being conducted every two years at major sources in Region 5. Eileen responded that we'd need to talk to Sara Breneman, who was the Air Enforcement Branch Chief. They conduct all the inspections and the State Review Framework reviews. It may take a while to get a response from Sara Breneman these days because she's involved with the Region 5 reorganization to look more like HQ's organizational structure – all enforcement branches within the different media/programs will be moved into the newly created enforcement and compliance assurance division.

Region 5 taking a closer look at facilities contributing to high cancer risks as found in the 2014 NATA

Katie explained that NATA contains health risks coming from point sources and nonpoint sources. There are two types of risk levels: at the census tract level and at the census block level. The census tract level risk data are available to the public. The census block level risk data are internal (i.e., not available to the public). The 1989 benzene NESHAP established a cancer risk level of 100 in 1,000,000 as requiring EPA to take action. OAQPS developed a list of 25 facilities in the country with high cancer risks based on the 2014 NATA that the regions should take a closer look. 22 of the 25 facilities had high cancer risks at the census tract level, while the remaining 3 had high cancer risks at the census block level. One of the 3 is in Region 5, specifically Evonik in Milton, Wisconsin which has a cancer risk of 2,000 in 1,000,000 at the census block level. Other facilities in Region 5 on the OAQPS list (besides Evonik) as having high cancer risks were:

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- Sterigenics in Willowbrook, Illinois (which Region 5 modeled after receiving preliminary 2014 NATA from OAQPS and also conducted ambient monitoring)
- Medline Industries in Waukegan, Illinois
- Vantage in Gurnee, Illinois (which Region 5 has not modeled on its own)
- Medplast in Grand Rapids, Michigan
- Ele in McCook, Illinois (which Region 5 modeled after receiving preliminary 2014 NATA from OAQPS)
- Cook Medical in Ellettsville, Indiana
- Baxter in Round Lake, Illinois
- Christ Hospital in Oak Lawn, Illinois
- American Contract Systems in Tiffin, Ohio
- American Contract Systems in Waunakee, Wisconsin

Eileen reiterated that Region 5 cannot do any more modeling or ambient monitoring without approval from OAQPS. She has not seen anything like this before.

Reviewer Comment (and Date of Review)	Team Response (and Date of Response)	Resolution (and Date of Resolution)
		WP approved. RML 3/27/19

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